

MANUFACTURING EXTENSION PARTNERSHIP

Success Stories from the Field

Accurate Millworks

West Virginia Manufacturing Extension Partnership

Lean Tools Help Accurate Millworks Thrive

Client Profile:

Accurate Millworks Inc., located in Princeton, West Virginia, is a family-owned and operated wood processing business. The company produces Basswood and Poplar shutter components for interior and exterior window shutters and other custom hardwood moldings. These components include louvers, stiles, rails, hanger strips, tilt rods, bottom rails, valances, house mouldings, and custom mouldings. The company employs 22 people.

Situation:

Accurate Millworks' products are high end precision components sold to the high end businesses in the home supply and building industry. This means the company must rely on a select group of customers which reduces some level of control on the selling price of their product. These factors make it essential to control operating cost as well as maximizing productivity. Since startup, the company has experienced higher than expected operating cost and lower than expected productivity. Accurate Millworks' owner, Robert Kincaid, had implemented many changes in an attempt to correct these problems with mixed results. In order to maintain his operation, additional improvement was needed. At the request of Robin Morgan from the Region 1 Workforce West Virginia office, the West Virginia Manufacturing Extension Partnership (WVMEP), a NIST MEP network affiliate, met with Kincaid to discuss his situation and possible assistance from the WVMEP.

Solution:

WVMEP proposed two projects to assist Kincaid in identifying potential improvements for the business. The first project included a Lean Process Assessment focusing on Lean concepts and general process arrangement. The Lean portion of the assessment looked at 12 areas of Lean practice to conduct a 'lean gap analysis' and identified several significant problems and a few critical lapses in the systems. The general arrangement portion of the assessment looked at items such as work flows, material handling and movement, and housekeeping and organization issues. Several problems were identified, and a report was generated listing all findings and recommendations to correct or improve the noted problems. The second project was an Energy Value Stream Mapping Event. The purpose of this activity was to develop a process Value Stream Map based on process flow and energy consumption in the plant, with the intent of identifying process problems and productivity issues that cause increased energy consumption. By identifying these problems and recommending countermeasures, the process can be streamlined which leads to lower energy use and lower cost per unit of production.

The Lean process assessment pointed out key needs which included communication with employees, reduction of clutter in the plant, standardized written procedures, a continuous improvement plan, a physical layout to support pull manufacturing, reduced work in process and material travel, the implementation of a preventative maintenance program to maintain and improve equipment, and a full quality program. The Lean process assessment generated recommendations for improvement to the

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overall manufacturing and management processes. The Energy VSM resulted in a total of 29 separate recommendations for reducing energy and improving the work flows and productivity which would further reduce the cost per unit produced.

Results:

- * Increased productivity by 20 percent.
- * Reduced Work in Process by \$200,000.
- * Invested \$100,000 in new equipment.
- * Reduced energy use by \$1,700.

Testimonial:

"With the information we received in our training from WVMEP, we learned how to think better about the process and eliminate unnecessary steps and holding areas. We value our capital and need to be efficient in the best use especially involving work in process. We also have put into writing process steps to define our work and use this document to help train new employees. We found the service provided to be professional and user friendly."

Robert Kincaid, President and Owner